

WHAT IS CLAIMED IS:

- 1 1. A storm water pretreatment system comprising:
 - 2 a retention area including a floor;
 - 3 a collection vault with an inlet in fluid communication with the retention area and
 - 4 an outlet;
 - 5 an oil/water separator;
 - 6 a dry well;
 - 7 a first pipe putting the collection vault in fluid communication with the oil/water
 - 8 separator;
 - 9 a second pipe putting the oil/water separator in fluid communication with the dry
 - 10 well; and
 - 11 a valve on the second pipe;
 - 12 an anti-siphon valve on the second pipe; and
 - 13 a sensing probe, controls and actuator operatively attached to the valve.
- 1 2. A storm water pretreatment system as claimed in claim 1, further
2 comprising a probe float switch operatively connected to the controls
- 1 3. A storm water pretreatment system as claimed in claim 1, further
2 comprising a first indicator to indicate when the valve is open.
- 1 4. A storm water pretreatment system as claimed in claim 1, further
2 comprising a second indicator to indicate when the valve is closed.

1 5. A storm water pretreatment system as claimed in claim 1, further
2 comprising a third indicator to indicate when contaminants have been detected in storm
3 water.

1 6. A storm water pretreatment system as claimed in claim 1, further
2 comprising an audible alarm to indicate when contaminants have been detected in storm
3 water.

1 7. A storm water pretreatment system as claimed in claim 1, wherein the
2 valve on the second pipe is a butterfly valve.

1 8. A storm water pretreatment system as claimed in claim 1, wherein the
2 actuator is electrically powered.

1 9. A storm water pretreatment system as claimed in claim 1, wherein the
2 actuator is hydraulically powered.

1 10. A storm water pretreatment system as claimed in claim 1, wherein the
2 actuator is pneumatically powered.

1 11. A storm water pretreatment system as claimed in claim 1, further
2 comprising a swing check valve located on the first pipe

1 12. A method for pretreating storm water comprising the steps of:

2 Gathering storm water in a retention area including a bottom;

3 Providing a collection vault with an opening in fluid communication with the

4 bottom of the retention area such that the storm water will flow into the collection vault;

5 Providing an oil/water separator in fluid communication with the collection vault

6 such the storm water will flow into the oil/water separator and separate the storm water

7 from the contaminating elements that are lighter than water and the sediment that is

8 heavier than water;

9 Providing a drywell in fluid communication with the oil/water separator such that

10 the storm water flows from the oil/water separator into the drywell;

11 Monitoring the storm water for the presence of contaminants using a sensor

12 probe;

13 Providing a valve located between the oil/water separator and the drywell, the

14 valve having an actuator operated by controls; and

15 Closing the valve when contaminants are detected in the storm water.

1 13. The method as claimed in claim 12 further comprising the step of :

2 activating a first indicator when the valve is open

1 14. The method as claimed in claim 12 further comprising the step of :

2 activating a second indicator when the valve is closed.

1 15. The method as claimed in claim 12 further comprising the step of :

2 activating a third indicator when contaminates are detected in the storm water.

1 16. The method as claimed in claim 12 further comprising the step of :

2 activating an audible alarm when contaminates are detected in the storm water.

1 17. A method for pretreating storm water comprising the steps of:

2 Gathering storm water in a retention area including a bottom;

3 Providing a collection vault with an opening in fluid communication with the

4 bottom of the retention area such that the storm water will flow into the collection vault;

5 Providing an oil/water separator in fluid communication with the collection vault

6 such the storm water will flow into the oil/water separator and separate the storm water

7 from contaminating elements present in the storm water that are lighter than water and

8 sediment present in the storm water that is heavier than water;

9 Providing a drywell in fluid communication with the oil/water separator such that

10 the storm water flows from the oil/water separator into the drywell;

11 Monitoring the retention area for the presence of storm water using a probe float

12 switch;

13 Monitoring the storm water for the presence of contaminants using a sensor

14 probe;

15 Providing a valve located between the oil/water separator and the drywell such

16 that the valve, when closed, can terminate the fluid communication between the oil/water

17 separator and the drywell, and when open, can put the oil/water separator and drywell in

18 fluid communication with each other;

19 Maintaining the valve in a normally closed position;

20 Opening the valve when storm water is detected in the retention area; and

21 Closing the valve when the valve is open and contaminants are detected in the

22 storm water.

1 18. The method as claimed in claim 17 further comprising the step of :

2 activating a first indicator when the valve is open.

1 19. The method as claimed in claim 17 further comprising the step of :

2 activating a second indicator when the valve is closed.

1 20. The method as claimed in claim 17 further comprising the step of :

2 activating a third indicator when contaminates are detected in the storm water.

1 21. The method as claimed in claim 17 further comprising the step of :

2 activating an audible alarm when contaminates are detected in the storm water